What Is Claimed Is:

1.   A method for verifying the charge invoicing for a
communications connection according to time intervals, a
testing device (10) able to simulate at least one calling,
analog terminal device (20) and at least one called terminal
device (30) being connected to at least one network node (40)
that can generate time pulses; the method comprising the
following method steps:

at least one predetermined test-communications connection is
set up and cleared again via at least the one network node
(40);

the interval between the start of the test-communications
connection and the generation of a first time pulse is
ascertained, and it is checked if the ascertained interval is
within a first predetermined time domain;

during the existing test-communications connection, time-unit
intervals of consecutive time pulses are measured and compared
to a predetermined time interval; and

it is checked if at least one additional time pulse has been
received after the end of the test-communications connection;
if yes, the interval between the end of the test-
communications connection and the at least one time pulse is
ascertained, and it is checked if the ascertained interval is
within a second predetermined time domain.

2.   The method as recited in Claim 1,
wherein it is further checked if the number of time pulses
occurring after the end of the test-communications connection
is less than, greater than, or equal to a predetermined,
maximum number y of time pulses.

3.   The method as recited in Claim 1 or 2,
wherein the time interval between the start of the test-
communications connection and the generation of the first time
pulse is ascertained, using the following steps:

the occurrence of a first predetermined event (connect; loop connection), which corresponds to the measurable start of the test-communications connection, is detected at a first predetermined measuring point (34) of the testing device (10); the reception of the first time pulse of the test-communications connection generated by the network node (40) is detected at a second predetermined measuring point (22) of the testing device; and

a time measurement (50) is started or stopped as a function of the detected occurrence of the first predetermined event (connect; loop connection) and the reception of the first time pulse.

4. The method as recited in Claim 3, wherein the systematic measuring errors between the location (44) of the actual occurrence of the start of the test-communications connection and the first measuring point (34) of the testing device (10) is ascertained; the systematic measuring error between the location (42) of the actual generation of the first time pulse and the second measuring point of the testing device (10) is ascertained; the interval between the detected occurrence of the first predetermined event and the reception of the first time pulse is measured and corrected by the amount of the systematic measuring error; and it is checked if the corrected interval is within the first predetermined time domain.

5. The method as recited in one of Claims 1 through 4, wherein the time intervals of consecutive time pulses are measured, using the following steps: the first time pulse received by the calling, analog terminal device (20) starts a first time measurement (24_1); each subsequent time pulse received by the calling, analog terminal device stops the time measurement, which has been

started by the immediately preceding time pulse, and starts a further time measurement;

an ith time measurement (24_i) is started by the last time pulse of the test-communications connection.

6.   The method as recited in Claim 5,
wherein each initiated time measurement is assigned a serial number.

7.   The method as recited in Claim 6,
wherein the time interval between the end of the test-communications connection and a first time pulse received after the end of the test-communications connection is ascertained, using the following steps:
a time measurement (55) is initiated, when a second predetermined event (disconnect; loop interruption), which corresponds to the measurable end of the test-communications connection, occurs at the first or second predetermined measuring point (34) of the testing device (10);
the time measurement (55) initiated by the second predetermined event is stopped, when the first time pulse is received at the second predetermined measuring point of the testing device after the end of the test-communications connection; and
the value of the time measurement (55) is compared to the second predetermined time domain.

8.   The method as recited in Claim 7,
wherein, when the second predetermined event (disconnect; loop interruption) occurs at the first or second predetermined measuring point (34; 22) of the testing device (10), the number of the currently active time measurement (24) of the time interval of two consecutive time pulses is acquired;
the time interval between the end of the test-communications connection and further time pulses received after the end of

the test-communications connection is ascertained, using the following steps:

the value of the time measurement (55) for the time interval between the end of the test-communications connection and the first time pulse received after the end of the test-communications connection, and the values of all time measurements (24_1-24_i) for time intervals of consecutive time pulses, whose numbers are each greater than the number of the time measurement acquired in response to the occurrence of the second predetermined event (disconnect; loop interruption) at the first or second predetermined measuring point (34; 22) of the testing device (10), are added and compared to the second predetermined time domain.

9.   The method as recited in Claim 7 or 8,
wherein the systematic measuring errors between the location (42, 44) of the actual occurrence of the end of the test-communications connection and the first and/or second measuring point of the testing device (10) is ascertained;
the systematic measuring error between the location (42) of the actual generation of time pulses and the second measuring point of the testing device (10) is ascertained;
the time interval between the occurrence of the second predetermined event (disconnect; loop interruption) and the reception of the first time pulse occurring after the end of the test-communications connection is measured and corrected by the amount of the systematic measuring error.

10.   The method as recited in one of Claims 3 through 9,
wherein the first measuring point is defined by the called terminal device (30); and
the second measuring point is defined by the calling, analog terminal device (20), the test-communications connection also being able to be ended at the two terminal devices (20, 30).

11.   A testing device for connection to at least one network
node (40), which is to be tested and may emit time pulses, in
particular for implementing a method as recited in one of
Claims 1 through 10, comprising
a call simulator (100) for simulating at least one calling,
analog terminal device (20) and for simulating at least one
further terminal device (30), which may be operated as a
called terminal device;
a first detector device (22) for detecting time pulses;
a second detector device (34) for detecting a first
predetermined event (connect, loop closure), which corresponds
to the measurable start of a test-communications connection;
the first and/or second detector device (22; 34) being
designed to detect a second predetermined event (disconnect;
loop interruption), which corresponds to the measurable end of
a test-communications connection;
a first time-measuring device (24) for measuring, in each
instance, time intervals of two consecutive time pulses;
a second time-measuring device (50) for measuring the interval
between the occurrence of the first predetermined event and
the reception of the first time pulse of a set up test-
communications connection;
a third time-measuring device (55) for measuring the interval
between the occurrence of the second predetermined event and
the reception of at least one time pulse after the measured
end of the test-communications connection; and
an evaluation device (70) for comparing the measured time
spans of the respective time-measuring devices to
corresponding, predetermined time domains.

12.   The testing device as recited in Claim 11,
wherein the evaluation device (70) is designed to check if the
number of time pulses occurring after the end of the test-

communications connection is less than, greater than, or equal to a predetermined, maximum number y of time pulses.

13. The testing device as recited in Claim 11 or 12, characterized by
a storage device (80), in which the systematic measuring error between the location (44) of the actual start of a test-communications connection and the second detector device (34) is stored, and in which the systematic measuring error between the location (42, 44) of the actual end of a test-communications connection and the first or second detector device (22; 34) is stored, and in which the systematic measuring error between the location (42) of the actual generation of time pulses and the first detector device (22) of the testing device (10) is stored;
a correction device (90) connected to the storage device (80) for correcting the values measured by the first, second, and third time-measuring devices (24, 50, 55) by the amount of the specific systematic measuring error;
the evaluation device (70) being designed to compare the measured and corrected time spans to corresponding, predetermined time domains.

14. The testing device as recited in one of Claims 11 through 13, wherein a device for serially numbering consecutive time intervals is provided;
in response to the numbers assigned to the time intervals, the third time-measuring (55) device may detect if a time interval has been measured in the first time-measuring device (24) after the detection of the second predetermined event (disconnect, loop interruption);and
the third time-measuring device (55) or the evaluation device (70) may add the value for the interval between the end of the test-communications connection and the first time pulse received after the end of the test-

communications connection and the values of all of the measured time intervals, whose numbers are, in each instance, greater than the number of the time interval that has been instantaneously measured in response to the occurrence of the second predetermined event (disconnect; loop interruption) at the first or second detector device (22, 34) of the testing device (10).

15. The testing device as recited in one of Claims 11 through 14, wherein the first detector device (22) is assigned to the calling, analog terminal device (20), and the second detector device (34) is assigned to the called terminal device (30).